Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Original) A method of detecting DNA markers in the *12q22-23* region, comprisingproviding a sample containing acellular DNA from a subject; and detecting one or more DNA markers in the *12q22-23* region in the sample.

2. (Original) The method of claim 1, wherein the sample is a serum sample.

3. (Original) The method of claim 1, wherein the sample is a plasma sample.

4. (Withdrawn) The method of claim 1, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

5. (Original) The method of claim 1, wherein the DNA markers are associated with the *APAF-1* gene.

6. (Currently amended) A method of detecting cancer, comprising
providing a sample containing acellular DNA from a subject; and
detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of any of the DNA markers is indicative of cancer.

7. (Original) The method of claim 6, wherein the sample is a serum sample.

8. (Original) The method of claim 6, wherein the sample is a plasma sample.

9. (Withdrawn) The method of claim 6, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

10. (Original) The method of claim 6, wherein the DNA markers are associated with the *APAF-1* gene.

11. (Original) The method of claim 6, wherein the cancer is melanoma.

12. (Original) The method of claim 11, wherein the melanoma is a primary melanoma.

13. (Original) The method of claim 11, wherein the melanoma is a metastatic melanoma.

14. (Original) The method of claim 6, wherein the cancer is colon cancer.

15. (Original) The method of claim 6, wherein the cancer is breast cancer.

16. (Original) The method of claim 6, wherein the cancer is brain cancer.

17. (Currently amended) A method of staging cancer, comprising

providing a sample containing acellular DNA from a subject suffering from cancer; and

detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of any of the DNA markers indicates a high probability of a metastatic cancer.

18. (Original) The method of claim 17, wherein the sample is a serum sample.

19. (Original) The method of claim 17, wherein the sample is a plasma sample.

20. (Withdrawn) The method of claim 17, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

21. (Original) The method of claim 17, wherein the DNA markers are associated with the *APAF-1* gene.

22. (Original) The method of claim 17, wherein the cancer is melanoma.

23. (Original) The method of claim 17, wherein the cancer is colon cancer.

24. (Original) The method of claim 17, wherein the cancer is breast cancer.

25. (Original) The method of claim 17, wherein the cancer is brain cancer.

26. (Currently amended) A method of monitoring progression of cancer, comprising

providing a sample containing acellular DNA from a subject suffering from cancer; and

detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of <u>any of</u> the DNA markers indicates a high probability of a progressing cancer.

27. (Original) The method of claim 26, wherein the sample is a serum sample.

28. (Original) The method of claim 26, wherein the sample is a plasma sample.

29. (Withdrawn) The method of claim 26, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

30. (Original) The method of claim 26, wherein the DNA markers are associated with the *APAF-1* gene.

31. (Original) The method of claim 26, wherein the cancer is melanoma.

32. (Original) The method of claim 26, wherein the cancer is colon cancer.

33. (Original) The method of claim 26, wherein the cancer is breast cancer.

34. (Original) The method of claim 26, wherein the cancer is brain cancer.

35. (Currently amended) A method of determining the efficacy of a cancer therapy, comprising

providing a sample containing acellular DNA from a subject suffering from cancer and administered with a therapy; and

detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of any of the markers indicates poor efficacy of the therapy.

36. (Original) The method of claim 35, wherein the sample is a serum sample.

37. (Original) The method of claim 35, wherein the sample is a plasma sample.

38. (Withdrawn) The method of claim 35, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

39. (Original) The method of claim 35, wherein the DNA markers are associated with the *APAF-1* gene.

40. (Original) The method of claim 35, wherein the cancer is melanoma.

41. (Original) The method of claim 35, wherein the cancer is colon cancer.

42. (Original) The method of claim 35, wherein the cancer is breast cancer.

43. (Original) The method of claim 35, wherein the cancer is brain cancer.

44. (Currently amended) A method of determining the probability of survival, comprising

providing a sample from a subject suffering from a metastatic cancer; and

detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of any of the markers indicates a low probability of survival.

45. (Original) The method of claim 44, wherein the sample is a tumor sample.

46. (Original) The method of claim 44, wherein the sample is a serum sample.

47. (Original) The method of claim 44, wherein the sample is a plasma sample.

48. (Withdrawn) The method of claim 44, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

49. (Original) The method of claim 44, wherein the DNA markers are associated with the *APAF-1* gene.

50. (Original) The method of claim 44, wherein the cancer is melanoma.

51. (Original) The method of claim 50, wherein the melanoma is a stage III melanoma.

52. (Original) The method of claim 51, wherein the melanoma is an RLM melanoma.

53. (Original) The method of claim 51, wherein the melanoma is an ITM melanoma.

54. (Original) The method of claim 50, wherein the melanoma is a stage IV melanoma.

55. (Original) The method of claim 44, wherein the cancer is colon cancer.

56. (Original) The method of claim 44, wherein the cancer is breast cancer.

57. (Original) The method of claim 44, wherein the cancer is brain cancer.

58. (Currently amended) A method of determining the probability of responsiveness to a therapy, comprising

providing a sample from a subject suffering from cancer; and

detecting one or more DNA markers in the *12q22-23* region in the sample, wherein LOH of any of the markers indicates a low probability of responsiveness to a therapy.

59. (Original) The method of claim 58, wherein the sample is a tumor sample.

60. (Original) The method of claim 58, wherein the sample is a serum sample.

61. (Original) The method of claim 58, wherein the sample is a plasma sample.

62. (Withdrawn) The method of claim 58, wherein the DNA markers include D12S1657, D12S393, D12S1706, D12S346, or a combination thereof.

63. (Original) The method of claim 58, wherein the DNA markers are associated with the *APAF-1* gene.

64. (Original) The method of claim 58, wherein the cancer is melanoma.

65. (Original) The method of claim 64, wherein the cancer is a matastatic melanoma.

66. (Original) The method of claim 65, wherein the melanoma is a stage III melanoma.

67. (Original) The method of claim 65, wherein the melanoma is a stage IV melanoma.

68. (Original) The method of claim 58, wherein the cancer is colon cancer.

69. (Original) The method of claim 58, wherein the cancer is breast cancer.

70. (Original) The method of claim 58, wherein the cancer is brain cancer.

71. (Withdrawn) A packaged product, comprising

a container;

one or more agents for detecting one or more DNA markers at the *12q22-23* region in a sample; and

an insert associated with the container and indicating that the sample contains acellular DNA.

72. (Withdrawn) A packaged product, comprising

a container;

one or more agents for detecting one or more DNA markers at the *12q22-23* region in a sample from a subject suffering from a metastatic cancer; and

an insert associated with the container and indicating that LOH of the markers indicates a low probability of survival.

73. (Withdrawn) A packaged product, comprising

a container;

one or more agents for detecting one or more DNA markers at the *12q22-23* region in a sample from a subject suffering from cancer; and

an insert associated with the container and indicating that LOH of the markers indicates a low probability of responsiveness to a therapy.

74. (New) The method of claim 1, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

75. (New) The method of claim 6, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

76. (New) The method of claim 17, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

77. (New) The method of claim 26, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

78. (New) The method of claim 35, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

79. (New) The method of claim 44, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.

80. (New) The method of claim 58, wherein the DNA markers include a combination of D12S1657, D12S393, D12S1706, and D12S346.